



Draft Environmental Review of the proposed U.S.-Singapore Free Trade Agreement

The Office of the U.S. Trade Representative, on behalf of the Trade Policy Staff Committee, seeks comment on the following draft environmental review of the proposed U.S.-Singapore Free Trade Agreement (FTA).

Comments on the draft environmental review are requested by September 20, 2002 to ensure timely input into the negotiations. Please note that comments at the present time may only be sent by fax to (202) 395-6143 or by e-mail to FR0029@ustr.gov (with subject line: "Singapore Draft Environmental Review").

Table of Contents

EXECUTIVE SUMMARY	1
I. OVERVIEW OF THE ENVIRONMENTAL REVIEW PROCESS– EXECUTIVE ORDER 13141 AND IMPLEMENTING GUIDELINES	3
II. BACKGROUND ON THE PROPOSED U.S.-SINGAPORE FTA AND ON SINGAPORE’S ENVIRONMENTAL RECORD	4
A. History and Anticipated Benefits of the Proposed FTA	4
B. Outline of Chapters of the Proposed FTA	5
C. Singapore’s Environmental Record	10
D. Singapore’s Environmental Review	12
III. DETERMINATION OF SCOPE OF REVIEW	12
A. Public and Advisory Committee Outreach and Comments	12
B. Scoping Process Regarding Economically Driven Environmental Impacts	13
C. Scoping Process Regarding Regulatory Impacts	14
D. Scoping Process Regarding Global and Transboundary Impacts	15
IV. POTENTIAL ECONOMIC IMPACTS OF THE U.S.-SINGAPORE FTA	15
A. Singapore’s Economy	15
B. Bilateral Trade and Investment	16
C. Barriers to Goods Trade	16
D. Potential Economic Effects of the FTA	17
E. Conclusions Regarding Economically-Driven Environmental Impacts	18
V. SECTORAL ISSUES SELECTED FOR REVIEW	18
A. Trade in Legally Protected Endangered Species	18
B. Other Environmentally Sensitive Trade	22
Ozone-Depleting Substances	22
Illegal Logging	22
Ornamental Fish	23
C. Environmental Technologies	24

VI.	REGULATORY ISSUES SELECTED FOR REVIEW	26
	A. Enforcement and Information Sharing on Customs and Import-Export Matters	26
	B. Investment	26
	C. Services	27

VII.	ENVIRONMENTAL COOPERATION	28
-------------	----------------------------------	----

ANNEX I

Multilateral Environmental Agreements to which Singapore is a Party
 Consultative Mechanisms to which Singapore is a Party

ANNEX II

Inventory of Environmental Cooperation Activities with Singapore

ANNEX III

List of Environment-Related Responses to November 29, 2000 Federal Register Notice
 Environment-Related Testimony at April 1, 2002 Public Hearing

EXECUTIVE SUMMARY

The Office of the U.S. Trade Representative (USTR), through the Subcommittee on Environment and Natural Resources of the Trade Policy Staff Committee (TPSC), requests public comment on this draft environmental review of the proposed U.S.-Singapore free trade agreement (Singapore FTA) pursuant to the Trade Act of 2002 and Executive Order 13141 – *Environmental Review of Trade Agreements*, 64 Fed. Reg. 63,169 (Nov. 18, 1999) (Order) and implementing guidelines, 65 Fed. Reg. 79,442 (Dec. 19, 2000) (Guidelines).¹ The Council on Environmental Quality (CEQ), the Departments of Agriculture, Commerce, Interior, Justice, Treasury, and State, the U.S. Environmental Protection Agency (EPA), and the U.S. Agency for International Development (USAID) have been active participants in the review. The review also draws upon the experience of the U.S.-Asia Environmental Partnership Program (USAEP), a USAID program that matches Asian environmental needs with U.S. environmental experience, expertise, and technology.

Section 4(a)(ii) of the Order requires reviews of the environmental effects of bilateral or plurilateral free trade agreements, such as the Singapore FTA. The Order states that “[t]rade agreements should contribute to the broader goal of sustainable development,” and that “[e]nvironmental reviews are an important tool to help identify potential environmental effects of trade agreements, both positive and negative, and to help facilitate consideration of appropriate responses to those effects whether in the course of negotiations, through other means, or both.”

This draft review describes the environmental review process and the TPSC’s conclusions to date. The review draws primarily upon environmental and economic expertise within the United States Government (USG), information provided by the public in response to Federal Register notices and a public hearing, the advice of relevant advisory committees, including the Trade and Environment Policy Advisory Staff Committee (TEPAC), and relevant economic analysis. Consistent with the Order and Guidelines, the focus of the review is on potential impacts in the United States. However, the TPSC also considered global and transboundary impacts in determining the scope of the review. As discussed below, some issues included in the review (*e.g.*, trade in endangered species) have implications both for enforcement of U.S. environmental laws and for advancement of U.S. environmental objectives globally.

The TPSC expects that changes in the pattern and magnitude of trade flows attributable to the Singapore FTA will not have any significant environmental effects in the United States. While it is conceivable that there may be instances in which environmental effects are concentrated regionally or sectorally in the United States, the TPSC could not identify any such instances.

¹ The TPSC, established under section 242 of the Trade Expansion Act of 1962, as amended (19 U.S.C. section 1872), is the principal staff-level mechanism for interagency decisionmaking on U.S. trade policy. The current participants in the TPSC process for purposes of environmental reviews include agencies with relevant environmental, economic, and foreign policy expertise. *See* Guidelines, Appendix A (65 Fed. Reg. at 79,448). Except where otherwise indicated, the term “TPSC” in this document refers to the relevant TPSC subcommittees addressing environmental issues in the interagency process.

While environmental impacts of predicted economic changes attributable to the FTA in the United States are expected to be minimal, the TPSC nevertheless identified, early in the negotiations, several environmental issues that warranted further consideration. Singapore is a major transit center for goods, including endangered species and other environmentally sensitive trade. In identifying and analyzing this issue, the TPSC drew in considerable part on public comments and TEPAC advice, as well as on expertise within federal agencies and information provided by Singapore. This analysis is helping to inform, *inter alia*, the USG's consideration of FTA provisions aimed at enhancing the two countries' ability to cooperate in enforcing their respective laws governing illegal trade.

In addition, the TPSC considered the potential of the FTA to promote the spread of "clean" environmental technologies (goods and services). The TPSC concluded that the increase in trade in this sector attributable to the FTA would have a negligible environmental impact within the United States, and a small to moderate positive environmental impact in Singapore and the surrounding Southeast Asia region.

The TPSC also considered whether provisions of the Singapore FTA could affect, positively or negatively, the ability of U.S. federal, state, local, or tribal governments to enact, enforce, or maintain environmental laws and regulations. Based on negotiating proposals the USG has provided to Singapore to date, the TPSC concluded that the prospective FTA would not affect the ability of the Parties to regulate in order to meet domestic health, safety, and environmental policy objectives.

As of the time of this draft review, the USG is still in the process of developing negotiating proposals to present to Singapore in some areas, including several of considerable public interest (*e.g.*, environment, certain aspects of investment). The debate on these issues is part of the trade policy debate more generally, and is not specifically limited to the Singapore FTA. In the context of Trade Promotion Authority (TPA) legislation, the Administration engaged in detailed consultations with Congress on these issues, as well as extensive public outreach to interested constituencies (including state, local, and tribal governments, environmental nongovernmental organizations [NGOs] and the business community). Shortly after the draft review was finalized, Congress provided guidance by establishing principal U.S. negotiating objectives in the Trade Act of 2002, signed by the President on August 6, 2002. Following this action, the TPSC will be developing positions in the Singapore FTA (as in other negotiations) to reflect the Trade Act's objectives. Through this draft review, the TPSC seeks public comment to inform the development of these positions, as well as comment on its analysis of the environmental implications of positions already developed.

Finally, the United States and Singapore have participated in recent years in a number of cooperative activities aimed at addressing significant environmental issues in Southeast Asia. The TPSC anticipates using information developed in this review to build on that cooperative relationship and explore ways in which the two countries can work together to advance their mutual environmental objectives in the region. The TPSC particularly encourages public

comment on this draft review concerning which areas of cooperation should be most actively explored.

I. OVERVIEW OF THE ENVIRONMENTAL REVIEW PROCESS– EXECUTIVE ORDER 13141 AND IMPLEMENTING GUIDELINES

Executive Order 13141–*Environmental Review of Trade Agreements* (64 Fed. Reg. 63,169) and implementing Guidelines (65 Fed. Reg. 79,442) require written environmental reviews of certain major trade agreements, such as the Singapore FTA.² The Trade Act of 2002 provides that the President shall conduct environmental reviews consistent with the Order and relevant guidelines, and report on such reviews to the Committee on Ways and Means of the House of Representatives and the Committee on Finance of the Senate.

The purpose of reviews is to ensure that policymakers are informed about reasonably foreseeable environmental impacts of trade agreements (both positive and negative), to identify complementarities between trade and environmental objectives, and to help shape appropriate responses if environmental impacts are identified. Reviews are intended to be one tool, among others, for integrating environmental information and analysis into the fluid, dynamic process of trade negotiations. USTR and the Council on Environmental Quality jointly oversee implementation of the Order and Guidelines. USTR, through the TPSC, is responsible for conducting the individual reviews.

The Order and Guidelines seek to provide significant opportunities for public involvement in the development of trade agreements, including early consultations with stakeholders and an early and open process for determining the scope of the environmental review (“scoping”). Through the scoping process, potentially significant issues are identified for in-depth analysis, while issues that are less significant – or that have been adequately addressed in earlier reviews – are eliminated from detailed study. Except in unusual cases, the public is given an opportunity to comment on a draft written review prepared while the negotiations are pending. A final written review is prepared as soon as feasible after negotiations are concluded.

As the Guidelines recognize, the approach adopted in individual reviews will likely vary from case to case, given the wide variety of trade agreements and negotiating timetables. Generally, however, reviews address two types of questions: (1) the extent to which positive and negative environmental impacts may flow from economic changes estimated to result from the prospective agreement; and (2) the extent to which proposed agreement provisions may affect U.S. environmental laws and regulations (including, as appropriate, the ability of state, local, and tribal authorities to regulate with respect to environmental matters). The primary focus of reviews is on effects in the United States, although global and transboundary effects may be considered as appropriate and prudent.

² The Order and Guidelines are available on USTR’s website at <http://www.ustr.gov/environment/environmental.shtml>.

The Guidelines recognize that reviews are a process, not just a written document. The overall goals of the review -- integrating environmental considerations into the development of U.S. trade negotiating objectives and positions -- can be achieved by a variety of formal and informal means, taking account of the dynamic nature of trade negotiations and the sensitivity of interactions with other countries. In that context, written documents are an important means of informing the negotiations, memorializing the review process, and explaining the rationale for the conclusions reached, as well as of informing the negotiating process. *See* Guidelines, Sections III & VII, 65 Fed. Reg. at 79,444-45, 79,447.

Where significant regulatory and/or economically driven impacts have been identified in the review, information concerning those impacts will be provided to negotiators and decisionmakers throughout the government, and the review will analyze options to mitigate negative impacts and create or enhance positive impacts. Because the review is closely integrated into the overall trade policy development process, relevant options involving negotiating positions are typically addressed in the interagency groups developing those positions on the topics in question. Options in other policy areas (*e.g.*, environmental policies) are addressed through the appropriate policy process.

II. BACKGROUND ON THE PROPOSED U.S.-SINGAPORE FTA AND ON SINGAPORE'S ENVIRONMENTAL RECORD

A. History and Anticipated Benefits of the Proposed Singapore FTA

On November 16, 2000, President Clinton and Singapore's Prime Minister Goh Chok Tong announced that the governments of the United States and Singapore would enter into negotiations on a bilateral free trade agreement. Negotiations were launched in December 2000. In early 2001, the Bush Administration reaffirmed the USG's commitment to the negotiations. Since then, a number of negotiating sessions have been held in Singapore, Washington, and London, and the Parties have made substantial progress.

The USG's decision to enter into FTA negotiations with Singapore was motivated by the desire to develop and strengthen further the U.S. relationship with one of our largest trading partners in the Pacific. The FTA will be one of a small number of free trade agreements the United States has concluded, and the first with an Asian country. Although Singapore's population is only 4 million, it is the U.S.'s largest trading partner in Southeast Asia and the eleventh largest in the world. Two-way U.S.-Singapore trade in goods totaled \$32.7 billion in 2001. Singapore has already signed bilateral pacts with New Zealand and Japan, and is seeking FTAs with Australia, Canada, and Mexico.

The FTA is expected to have significant commercial benefits. In particular, the agreement should have substantial benefits for "new economy" companies because of its focus on removing Singapore's restrictions on a wide range of services, including high technology and high value-added sectors such as engineering, medical, information technology, environmental, legal,

financial, and distribution services. Furthermore, the FTA may serve as a positive step toward realization of the Asia-Pacific Economic Cooperation (APEC)'s "Bogor Vision," under which APEC's 21 members are working toward "free and open trade in the Pacific" by 2010 for developed economies, and 2020 for developing economies. For these reasons, the USG's goal is to achieve an FTA that can serve as a model for the region.

B. Outline of Chapters of the Proposed Singapore FTA

Because the FTA negotiations with Singapore are ongoing, the provisions in the FTA cannot be described with precision because their specific content is not yet determined. The following outlines the proposed chapters in the agreement and gives a brief description of the USG's principal objectives with respect to each chapter.

As indicated above, the development of USG negotiating positions in some areas (*e.g.*, environment, some aspects of investment) has awaited Congressional guidance in TPA legislation. Now that the Trade Act of 2002 has provided such guidance, the TPSC will be developing negotiating positions for the Singapore FTA to reflect Congressional intent. By releasing the draft review at this time, the TPSC wishes to provide the public an opportunity to comment on these issues in light of the Trade Act, while the negotiations are pending. In addition, some environmental issues relevant to other areas of the FTA (*e.g.*, endangered species trade) have been identified, and public comment on these issues is also timely. The final environmental review will address environmental issues identified as relevant in a comprehensive manner. *See* Guidelines, Section III.C, 65 Fed. Reg. at 79,445.

Through the FTA, the United States and Singapore intend to liberalize trade in a number of areas, while preserving each country's ability to set and maintain its chosen levels of protection for health, safety, and the environment. The FTA is expected to eliminate duties and other barriers to bilateral trade in goods originating in the two countries. The FTA also is expected to address trade in services, intellectual property rights protection, safeguards, electronic commerce, competition, rules of origin, customs administration, enforcement cooperation and information sharing concerning import-export laws, investment, government procurement, trade and environment, trade and labor, exceptions to FTA obligations, and procedural matters such as consultations and dispute settlement. In addition, the two governments will reaffirm their existing obligations under relevant World Trade Organization (WTO) agreements, *e.g.*, the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) and the Agreement on Technical Barriers to Trade (TBT).

Preamble and Objectives

The FTA will include a preamble and statement of objectives and purpose. Although these provisions will not create specific obligations, they frame the FTA's obligations in a meaningful way. The USG anticipates that the preamble and objectives will draw upon other trade agreements to which the USG is a party (*e.g.*, the Agreement Establishing the World Trade Organization [WTO Agreement] and the North American Free Trade Agreement [NAFTA]), and

will reaffirm the Parties' commitment to making trade liberalization and environmental policies mutually supportive.

Trade in Goods

The USG's objectives in the market access chapter are to lower tariffs, establish conditions of national treatment for trade between the Parties, and address certain non-tariff issues. The FTA is expected to eliminate tariffs on virtually all products over time, primarily for the United States as most of Singapore's applied tariffs are already at zero. This chapter also will address issues relating to non-tariff barriers and certain customs treatment of agricultural and non-agricultural goods that are traded between the Parties. In addition, it will contain provisions concerning certain taxes, customs fees, and agricultural export subsidies.

Rules of Origin, Customs Administration, and Enforcement Cooperation Regarding Import and Export Restrictions

The USG's objective with respect to the customs administration chapter is to ensure that laws, regulations, and decisions governing customs matters are administered transparently and predictably and are not applied in a manner that would create unwarranted procedural obstacles to international trade. The FTA will also include a chapter establishing a regime on product-specific rules of origin to determine which products will be eligible for preferential treatment under the FTA. Further, the chapter is expected to encourage cooperation with regard to implementation of the FTA and the Parties' laws and regulations governing imports and exports, and to foster exchange of information relevant to law enforcement activities in this area. These provisions should complement the USG's efforts to enforce its domestic laws and international commitments regarding endangered species and other environmentally sensitive trade.

Services

The USG's objective with regard to the services chapter is to ensure a secure, predictable and transparent environment for bilateral trade in services. The commitments in the chapter will be modeled on the obligations and concepts in the WTO General Agreement on Trade in Services (GATS), the NAFTA, and other free trade agreements to which the United States is a Party.

Environment

Pursuant to section 2102(a) of the Trade Act of 2002, the USG's overall trade negotiating objectives are to promote trade and environment policies that are mutually supportive and to seek provisions in trade agreements under which the Parties will strive to ensure that they do not weaken or reduce the protections afforded in domestic environmental laws as an encouragement for trade. Section 2102(b) of the Act also establishes a number of principal negotiating objectives related to the environment:

- (1) to ensure that a Party does not fail to effectively enforce its environmental laws in a manner affecting trade between the United States and that Party;
- (2) to recognize that a Party to a trade agreement is effectively enforcing its environmental laws if a course of action or inaction reflects a reasonable exercise of discretion or results from a bona fide decision regarding allocation of resources, and that no retaliation may be authorized based on the exercise of these rights or the right to establish domestic levels of environmental protection;
- (3) to strengthen the capacity of U.S. trading partners to protect the environment through the promotion of sustainable development;
- (4) to reduce or eliminate government practices and policies that unduly threaten sustainable development;
- (5) to seek market access for U.S. environmental technologies, goods, and services; and
- (6) to ensure that environmental, health, and safety policies and practices of Parties to trade agreements do not arbitrarily or unjustifiably discriminate against U.S. exports or serve as disguised barriers to trade.

Trade Act of 2002, section 2102(b)(11).

As discussed above, the USG is developing its positions on environmental provisions in the Singapore FTA to implement the above guidance.

Labor

Section 2102 of the Trade Act of 2002 also establishes negotiating objectives with regard to labor, and the USG is developing positions on labor to implement those objectives in the Singapore FTA. However, the labor provisions are beyond the scope of this environmental review.

Investment

The USG's objective is to provide a secure, predictable, and transparent environment for U.S. investment in Singapore and Singaporean investment in the United States, and to remove or reduce particular types of barriers to investment in the two countries. The investment chapter is expected to establish a basic set of mutual obligations as well as a mechanism for resolving disputes.

As discussed in Section VI.B. below, the USG is still in the process of developing positions on the investment chapter to reflect the guidance provided by the Trade Act of 2002, including on such issues as a mechanism allowing private investors of a Party to bring claims against the other

Party for alleged breaches of the agreement (investor-State mechanism) and obligations concerning the minimum standard of treatment for investors and expropriation.

Intellectual Property Rights

The USG's objective regarding intellectual property rights is to promote adequate and effective protection of these rights. The obligations concerning intellectual property rights are expected to complement those the United States and Singapore have undertaken pursuant to the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The USG is also seeking clarifications that would address particular concerns with regard to copyright enforcement and implementation by Singapore of the World Intellectual Property Organization (WIPO) Copyright Treaty.

Competition

The USG objective in the competition policy chapter is to address such issues as anticompetitive business conduct, state monopolies, and state enterprises, including "government-linked companies" (a term that encompasses the many Singaporean enterprises in which the Government of Singapore has ownership or control interests). The chapter may also include provisions for cooperation and information exchange in these areas.

Safeguards

"Safeguard" provisions allow a party to remove FTA preferences temporarily if increased imports from the other party are a substantial cause of serious injury or pose the threat of serious injury. The USG has proposed safeguard provisions for the Singapore FTA similar to those in previous FTAs to which the United States is a Party.

Government Procurement

The FTA's procurement chapter will build on the existing commitments in the WTO Government Procurement Agreement, which ensures non-discrimination, transparency, predictability, and accountability in the government procurement process and provides appropriate reciprocal, competitive government procurement opportunities to U.S. suppliers in Singapore's government procurement market. The USG's objective is to expand WTO GPA benefits by securing new commitments from Singapore in the services area, lowering procurement threshold values for goods and services, and obtaining a commitment that the Government of Singapore shall not exercise any control or influence in procurement conducted by Singapore's Government Linked Corporations.

Electronic Commerce

The USG is seeking to eliminate tariffs and other possible trade barriers affecting the trade in digital products, including, *e.g.*, software, video, and text.

Sanitary and Phytosanitary Measures (SPS)

The Parties will affirm their rights and obligations arising under the WTO SPS Agreement, which provides disciplines on government measures aimed at protecting human, animal, or plant life or health from risks arising from the spread of pests and diseases, or from additives or contaminants found in food, beverages, or feedstuffs. The Parties are not considering additional obligations in this area.

Technical Barriers to Trade (TBT)

The Parties are discussing a cooperation program to exchange information on subjects covered by the WTO TBT Agreement, which covers technical regulations, standards, and conformity assessment procedures. The Parties are not considering any additional obligations in this area.

Institutional Provisions

The USG anticipates institutional provisions similar to those in previous FTAs to which the United States is a Party, which establish a Joint Committee that would meet annually to review functioning of the Agreement.

Transparency

The USG anticipates transparency obligations similar to those in the NAFTA, which will require both Parties to the FTA, to the extent possible, to publicize their laws and regulations in a manner that will allow interested persons and the general public to understand the applicable legal requirements and the basis for any decisions taken, and also to participate in their development.

Dispute Settlement

The USG anticipates that the FTA will include a State-to-State dispute settlement system similar to that in previous FTAs, which provides for speedy and impartial resolution of disputes. If the complaining party is successful, the dispute settlement system will provide a mechanism for encouraging the responding party to comply with its obligations. As in previous agreements, the USG also anticipates provisions aimed at improving the transparency of the dispute settlement system.

Exceptions

Finally, the FTA will contain provisions on exceptions from FTA obligations, including exceptions for the protection of human, animal, or plant life or health, conservation of living and non-living exhaustible natural resources, taxation measures, national security, and other reasons. Such exceptions exist in other trade agreements, *e.g.*, the NAFTA, Article XX of the General

Agreement on Tariffs and Trade (GATT) 1994, and Article XIV of the GATS. The USG is still developing its approach to the exceptions chapter.

C. Singapore's Environmental Record

Singapore is a highly urbanized city-state that has experienced rapid industrialization and economic growth in the last three decades.³ As a result, Singapore has focused on ways of addressing urban pollution, and has developed a long track record of effective environmental regulation and enforcement in this area. In 1972, Singapore created its Ministry of Environment (ENV), becoming one of the first countries in the world to establish a national-level agency dedicated to environmental protection. Though ENV has primary responsibility for administering Singapore's environmental protection regime, a number of other agencies (*e.g.*, the Ministry of Health, the Maritime and Port Authority, the Agri-Food and Veterinary Authority, and the Land Transport Authority) assist with enforcement, administration, management, and research activities.⁴

At the UN-sponsored 1992 Earth Summit in Rio de Janeiro, Singapore unveiled the Singapore Green Plan (SGP), a ten-year plan for protecting and sustaining the environment. Most of the programs in the SGP have been successfully implemented, resulting in a generally high environmental quality and improvements in principal environmental indicators (*e.g.*, air, water) despite almost continual economic growth. Singapore's ambient air quality is well within both U.S. EPA and World Health Organization (WHO) standards. Likewise, Singapore's comprehensive wastewater collection and treatment infrastructure has kept its water sources relatively clean. Over 99 percent of the population in Singapore enjoys modern sanitation. All wastewater is collected and treated at six water reclamation plants before discharge into the sea, or is further treated for re-use. Drinking water meets or exceeds WHO potable water standards, and inland and coastal waters support both aquatic life and recreational use.

Singapore incinerates 90 percent of its unrecycled solid waste and landfills the rest. With little space for additional incineration or landfill facilities, Singapore has implemented ambitious recycling programs to reduce the growth of solid waste. ENV estimates that 44 percent of Singapore's solid waste is now recycled. Approximately 5 percent of Singapore's landmass has been set aside as "green space" (*i.e.*, conservation areas), and Singapore intends to undertake further planting.

³ This section draws in part upon information provided by the Government of Singapore.

⁴ For example, the Ministry of Trade & Industry, in cooperation with the Singapore Institute of Standards and Industrial Research, is engaged in helping Singaporean companies qualify for ISO 14000, the International Organization for Standardization's environmental management benchmark.

Citizen input on environmental issues can reach relevant government agencies through a number of channels, from formal public consultations on draft policy documents to ENV's interactive website (<http://www.env.gov.sg/default1.htm>) or the Singaporean government's Service Improvement Unit. Citizens' Consultative Committees, Residents' Committees, and Community Center Management Committees also serve to provide feedback. In addition, Singapore has an active community of NGOs dedicated to environmental issues. The Singapore Environment Council (SEC), an umbrella organization for environmental groups and causes, helps coordinate the activities of many of Singapore's smaller NGOs. For more information, *see* the SEC's website (<http://www.sec.org.sg/>).

Singapore is a party to various multilateral environmental agreements, including the International Convention for the Prevention of Marine Pollution from Ships, the Basel Convention for the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the UN Convention on Biological Diversity, the UN Framework Convention on Climate Change, the Convention on Trade in Endangered Species of Wild Flora and Fauna, and the Montreal Protocol on Substances that Deplete the Ozone Layer. *See* Annex I (list of major international environmental agreements to which Singapore is a Party). Relevant aspects of Singapore's implementation of CITES and the Montreal Protocol are discussed in greater depth below.

Regionally, Singapore has taken the lead on several important environmental initiatives: banning the import and manufacture of nonpharmaceutical aerosols containing chlorofluorocarbons (CFCs) and polystyrene sheets produced with CFCs; introducing unleaded gasoline (1992); phasing out CFCs (1993); and phasing out leaded gasoline (1998). In addition, Singapore actively participates in a number of Association of Southeast Asian Nations (ASEAN) initiatives designed to improve cooperation on environmental issues. These efforts include the ASEAN Agreement on Transboundary Haze Pollution, the harmonization of air and water quality standards, and a series of environmental conferences to exchange ideas and experiences with other ASEAN countries. Singapore hopes to become a regional hub for environmental technology promotion and intends to establish a permanent "environment academy" for training decision makers in other countries regarding environmental standards, regulations, practices, and technologies.

In 2001, Singapore commenced a review of the 1992 SGP mentioned above. The revised plan is called the Singapore Green Plan 2012, or SGP 2012. The draft SGP was prepared with input from the representatives of all sectors (referred to by Singapore as the "3P" – Public, Private, and People sectors). The draft SGP 2012 was made available at a Singapore government website, <http://www.env.gov.sg/sgp2012>; the website also contains a summary of public comments received on the draft. Singapore is taking these comments into account in finalizing the SGP 2012 (expected to be released in August 2002).

The SGP 2012 is intended to serve as Singapore's environmental blueprint to help the country to achieve environmental sustainability over the next ten years. The draft SGP 2012 maps out three key "policy thrusts". The "first thrust" is to ensure the innovative and efficient use of scarce resources. SGP 2012 sets out a number of targets for land, air, and water, to be achieved by

2012: (1) to increase the rate of recycling to 60 percent, and work towards “zero landfill”; (2) to diversify and increase water supply by increasing catchment areas to 67 percent of land surface, and increase supply from non-conventional waters sources (*i.e.*, desalinization and water reclamation); (3) to strive for continued improvement of air quality through greater use of cleaner energy, higher energy efficiency, and adoption of best practices in pollution control; and (4) to retain a low incidence of environment-related diseases.

SGP 2012’s “second thrust” is to promote the active participation of all sectors of the population in sustaining a quality living environment, including participation in all the major environmental initiatives. Singapore also intends to increase efforts to promote public awareness and public education concerning environmental issues.

The Plan’s “third thrust” commits Singapore to doing its part for the global environment. In particular, Singapore plans to play an active role in regional efforts to reduce or eliminate transboundary pollution and in supporting environmental capacity building efforts for the international community.

D. Singapore’s Environmental Review

Singapore is conducting its own environmental review of the prospective FTA. The review is expected to address the potential economic impacts of the FTA and its implications for Singapore’s overall environmental strategies and planning, *e.g.*, in areas of pollution control, waste management, and water conservation. The USG and Singapore plan to exchange insights gathered from their respective reviews in future negotiating sessions.

III. DETERMINATION OF SCOPE OF REVIEW

To determine the scope of this review, the TPSC considered information provided by the public, advice of the TEPAC and other advisory committees with relevant expertise, and input from environmental, trade, and investment experts within federal agencies. The TPSC also took account of the fact that Singapore is conducting its own environmental review of the potential agreement. Throughout the review process, the TPSC has considered relevant environmental information and analysis in developing U.S. negotiating positions, so as to ensure that insights from the review were appropriately taken into account.

A. Public and Advisory Committee Outreach and Comments

The review was formally initiated by publication of a notice in the Federal Register, which requested public comment on the scope of the review. *See* 65 Fed. Reg. 71,197 (Nov. 29, 2000); 65 Fed. Reg. 80,982 (Dec. 22, 2000) (extending public comment period). Because the negotiating schedule was extended beyond what was originally anticipated, the TPSC provided a supplemental opportunity for public comments, *see* 67 Fed. Reg. 8833 (Feb. 26, 2002), and

TEPAC views. The TPSC also held a public hearing to discuss issues raised in connection with the FTA, including environmental issues. *See* 67 Fed. Reg. 9349 (Feb. 28, 2002).⁵

TEPAC and a number of public commentators identified several environmental issues in connection with the proposed FTA. In particular, they called the TPSC's attention to Singapore's role as a significant transit center for environmentally sensitive trade: wildlife and wildlife products, including endangered species; ozone depleting substances; timber and wood products; and live fish for consumption and aquariums. The comments raised concerns that some of this trade may be in violation of commitments under relevant international agreements, *e.g.*, CITES and the Montreal Protocol. Commentators also suggested that even "legal" trade of certain wildlife products should be examined to ensure that it is consistent with principles of sustainable development. In addition, some commentators raised concerns that the FTA could lead to increased ship and air traffic between the two countries, thereby increasing the potential for emissions of pollutants and for spills of hazardous cargoes.

Other comments focused on the potential environmental benefits of increased market access for environmentally-friendly goods and, more significantly, services from the United States. These comments stressed Singapore's potential as a center for transmitting these goods and services throughout Southeast Asia.

Concerning possible impacts on U.S. environmental laws and regulations, several commentators urged the USG to include core environmental obligations in the body of the trade agreement. Others contended that the FTA was not the proper forum for addressing environmental concerns. Some commentators also suggested that the FTA contain specific provisions reaffirming the two countries' obligations under multilateral environmental agreements to which they are both Party.

Some commentators also raised specific concerns with the proposed inclusion of an investment chapter, particularly with regard to inclusion of a mechanism for investors to bring disputes with governments before arbitral panels ("investor-State mechanism") and the potential for investment concerns to override environmental protection. Other commentators stated that robust investment protection is essential to any FTA.

B. Scoping Process Regarding Economically Driven Environmental Impacts

The Guidelines provide that the review shall examine "the extent to which positive and negative environmental impacts may flow from economic changes estimated to result from the trade agreement." Guidelines, Section V.C.1, 65 Fed. Reg. at 79,446. The TPSC considered available

⁵ USTR received 35 sets of comments in response to the initial Federal Register notices, of which eight were relevant to the environmental review. Five individuals and organizations testified at the public hearing; two presentations focused primarily on environmental issues. No comments were received in response to the supplementary Federal Register notice. *See* Annex III (listing environment-related comments).

economic information in determining whether any significant potential environmental effects were likely to be associated with the predicted economic changes. As discussed below, *see* Section IV, the TPSC did not identify any such effects. However, the TPSC concluded that the issues raised in connection with wildlife, endangered species and other environmentally sensitive trade warranted closer scrutiny. The TPSC also selected the environmental technology sector for more in-depth review.

C. Scoping Process Regarding Regulatory Impacts

Concerning possible regulatory impacts (*see* Guidelines, Section V.B, 65 Fed. Reg. at 79,446), the TPSC examined the USG's negotiating proposals for each chapter of the proposed agreement. In each case, the TPSC compared the proposals with current USG obligations that would prevail in the absence of the agreement. The TPSC also considered alternative approaches and relevant environmental analysis during the interagency process for developing the proposals. The TPSC sought to identify provisions that could affect, positively or negatively, the ability of federal, state, local or tribal governments to enact, enforce, or maintain U.S. environmental laws and regulations. The TPSC also considered provisions affecting the USG's ability to fulfill international obligations or participate in international cooperative fora. Further, the TPSC reviewed the extensive regulatory analysis of similar proposals in the proposed U.S.-Chile FTA, set forth in the draft review of the Chile FTA (Nov. 2001), and the comments received on that draft review.

Because the provisions in the Singapore FTA are expected to be similar in material respects to those under consideration in the proposed Chile FTA, the TPSC's scoping analysis and conclusions regarding the possible significance of regulatory impacts are similar to those reached in the draft review of the Chile FTA. As discussed in the Chile FTA draft review, many chapters of the FTA – *e.g.*, financial services, e-commerce, safeguards -- do not raise significant environmental issues. Certain other trade obligations, such as those relating to sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) measures, can have environmental significance. However, the Singapore FTA will merely reaffirm the two countries' existing obligations under the WTO SPS and TBT Agreements, respectively, and will contain no new obligations. Accordingly, the TPSC concluded that these areas need not be addressed in the written review. Members of the public interested in a fuller discussion are referred to the Chile FTA draft review (*see* <http://www.ustr.gov/environment/draftchileer.pdf>). More information is also available in the GATT Uruguay Round Statement of Administrative Action and the Uruguay Round Report on Environmental Issues (1994).

The TPSC found that the environmental implications of the provisions on investment, services, and enforcement and information-sharing regarding customs and import-export laws warranted some discussion in the written draft review. The final review will contain a fuller discussion of these issues, as well as of the environmental provisions of the FTA.

D. Scoping Process Regarding Global and Transboundary Impacts

Section 5(b) of the Order provides that “as a general matter, the focus of environmental reviews will be impacts in the United States,” but “[a]s appropriate and prudent, reviews may also examine global and transboundary impacts.” The Guidelines state that potential global and transboundary impacts should be considered as part of the scoping process for every review, and provide guidance concerning particular factors to take into account. Guidelines, Section IV.B.5, 65 Fed. Reg. at 79,446.

In this review, in considering possible global and transboundary impacts, the TPSC took into consideration a number of factors, including Singapore’s own commitment to consideration of environmental effects within its region and the comments submitted by TEPAC, environmental NGOs, the business community, and other interested members of the public. As discussed above, *see* Section III.B, the TPSC concluded that the potential impacts of the FTA on wildlife, endangered species, and other environmentally sensitive trade should be examined in greater depth. This area has implications both within the United States (regarding enforcement of U.S. environmental laws) and for U.S. interests in the global environment. The review will also inform the USG’s consideration of possible cooperative activities with Singapore, which are expected to have impacts in the Southeast Asia region.

IV. POTENTIAL ECONOMIC IMPACTS OF THE U.S.-SINGAPORE FTA

A. Singapore’s Economy

Singapore is a city-state of approximately 4 million people of which 700,000, or 17.5 percent, are foreigners (mainly migrant workers and professionals). Located adjacent to one of the world’s busiest shipping lanes, its economy is heavily dependent on both imports and exports. Singapore’s total imports and exports exceed its GDP. In 2000, Singapore’s GDP totaled \$93.7 billion (about one percent of the U.S. GDP of \$9.96 trillion), while its total goods trade (exports plus imports) was \$239.8 billion. Singapore’s GDP per capita in 2000 was \$23,884, approximately one-third less than U.S. per capita GDP of \$36,184. Although Singapore’s GDP growth rate decelerated to 0.4 percent in 1998 due to the Asian economic crisis, Singapore’s average annual growth over the past decade (1990-2000) has been 7.6 percent, with just over two-thirds of GDP generated by the services sector.

Singapore is an open economy with long-standing policies designed to promote free trade and investment. It has an investment regime actively promoting foreign inflows of both human and financial capital, as well as virtually no applied tariffs. Singapore is a leading advocate of trade and investment liberalization in both ASEAN and APEC. It is a regional hub for Asian trade, with more than 40 percent of its total exports consisting of re-exports of products from other countries. In 1999, its exports to the world totaled \$114.6 billion, while exports of Singaporean domestic products totaled only \$68.6 billion. Similarly, total imports measured \$111.0 billion in 1999, while imports for Singapore’s domestic consumption measured \$73.3 billion. Singapore’s trade balance with the rest of the world (including re-exports to other countries) was a surplus of

\$3.6 billion in 1999. However, excluding such re-exports, the balance was a deficit of \$4.6 billion.

B. Bilateral Trade and Investment

Singapore is currently the United States' eleventh largest trading partner, with \$32.7 billion in two-way goods trade during 2001. U.S. goods exports to Singapore in 2001 were \$17.7 billion, down 0.6 percent (\$114 million) from 2000, but up 36 percent from 1994 (the year prior to the Uruguay Round). U.S. exports to Singapore accounted for 2.4 percent of overall U.S. exports in 2001, down from 2.5 percent in 1994. The top U.S. export categories (2-digit HS) in 2001 were: machinery (\$4.6 billion); electrical machinery (\$4.4 billion); aircraft (\$3.5 billion); and optic and medical instruments (\$1.0 billion). Singapore was the United States' fourteenth largest source of imports in 2001. U.S. goods imports from Singapore totaled \$15.0 billion in 2001, a 22 percent decrease (\$4.2 billion) from 2000, and down 2.5 percent over the last seven years. U.S. imports from Singapore accounted for 1.3 percent of overall U.S. imports in 2001, down from 2.3 percent in 1994. The five largest import categories in 2001 were: machinery (\$8.2 billion); electrical machinery (\$3.0 billion); special other, *i.e.*, repaired products (\$1.0 billion); organic chemicals (\$854 million); and optic and medical instruments (\$729 million). The U.S. goods trade surplus with Singapore was \$2.7 billion in 2001, a \$4.0 billion swing from the \$1.4 billion trade deficit in 2000.

U.S. trade in services with Singapore (exports and imports) is 19 percent of the level of U.S. merchandise trade with Singapore. U.S. exports of private commercial services (*i.e.*, excluding military and government) to Singapore were \$4.8 billion in 2000 (latest data available), 6.6 percent (\$299 million) greater than 1999 and 82 percent (\$2.2 billion) greater than 1994 levels. Other private services, and royalties and licensing fees categories, accounted for most of U.S. exports in 2000. U.S. imports of private commercial services (*i.e.*, excluding military and government) were \$2.2 billion in 2000 (latest data available), up 0.6 percent (\$14 million) from 1999, and up 92 percent (\$1.1 billion) from 1994. Tourism and other transportation categories accounted for most of U.S. services imports from Singapore. The United States registered a services trade surplus of \$2.7 billion with Singapore in 2000.

The stock of U.S. foreign direct investment (FDI) in Singapore was \$23.2 billion in 2000, a 15.5 percent increase from 1999. U.S. direct investment in Singapore is primarily concentrated in the manufacturing and finance sectors. The stock of Singapore FDI in the United States was \$7.7 billion in 2000.

C. Barriers to Goods Trade

Goods trade between the United States and Singapore is largely free of restrictions. Singapore's principal tariff barriers to goods trade are duties of between 2-3 percent on alcoholic beverages, tobacco products, and motor vehicles, most of which are imported. As for other trade distortions, Singapore maintains three export promotion programs available to both domestic and foreign firms. These are known as the Trade Incentives Program, the Double Taxation

Deduction (to compensate for foreign taxation of corporate income), and the Production for Export Scheme. Singapore has notified the WTO that the Double Taxation Deduction will be phased out by 2003 and that it is no longer accepting applications for the Production for Export Scheme.

U.S. duties on imports from Singapore are less than 1 percent on average, with the preponderance of those duties falling on textiles and apparel. Imports of apparel from Singapore are also subject to quotas that will be removed in 2005 under the Agreement on Textiles and Clothing.

D. Potential Economic Effects of the FTA

According to an independent study using the Michigan Model of World Production and Trade to predict economic effects of various free trade agreements, the Singapore FTA would boost global welfare by \$20.6 billion.⁶ In absolute terms, most of this positive welfare effect would be enjoyed by the United States (\$16.7 billion, or 0.18 percent of GNP). Singapore's welfare would increase by \$2.0 billion (2.7 percent of GNP). The sectoral employment effects on the United States would be relatively small but positive. Singapore would experience sectoral employment increases in wearing apparel and trade and transport services.

A second study using a number of computable general equilibrium (CGE) models predicts that a U.S.-Singapore FTA would result in an increase in Singapore's welfare equal to 0.7 percent of its GDP, with no detectable change in U.S. welfare as a percentage of the huge U.S. GDP.⁷ (In contrast to a partial equilibrium approach, which looks at changes in a specific sector or sectors, a CGE model attempts to examine the interaction of the full range of markets and industries throughout an economy at a point in time.) Singaporean exports to the world would increase by 0.88 percent; U.S. exports to the world would increase by 0.17 percent; Singaporean imports from the world would increase by 0.92 percent; and U.S. imports from the world would rise by 0.16 percent.⁸

⁶ Drusilla Brown, Alan Deardorff, and Robert Stern, "Multilateral, Regional, and Bilateral Trade-Policy Options for the United States and Japan," University of Michigan School of Public Policy Discussion Paper No. 469 (April 23, 2001).

⁷ Robert Scollay and John P. Gilbert, "New Regional Trading Arrangements in the Asia Pacific," Institute for International Economics, Washington, D.C. (May 2001).

⁸ USTR requested the U.S. International Trade Commission to conduct an investigation of the Singapore economy and economic impact of the U.S.-Singapore FTA pursuant to section 332(g) of the Tariff Act of 1930 (19 U.S.C. section 1332(g)). The TPSC is drawing on this study to assist in developing negotiating strategy.

E. Conclusions Regarding Economically-Driven Environmental Impacts

Both Singapore and the United States have low or no tariffs on goods traded bilaterally, and the TPSC could not identify any significant non-tariff barriers that would be relevant. Thus, although the economy of Singapore is substantial, the TPSC found that the impact on total U.S. goods imports, goods exports, production, or employment would likely be small, and therefore that the environmental impacts in the United States resulting from the changes in goods trade flows as a result of the FTA would not be significant. For similar reasons, the TPSC concluded that the potential for overall increases in pollutant emissions and spills of hazardous materials as a result of increased goods trade attributable to the FTA (as suggested by some public comments) was not likely to be significant. While it is conceivable that there could be instances in which these or other environmental impacts could be concentrated regionally or sectorally in the United States, neither the public comments nor the TPSC could identify any such instances. Singapore's environmental review is expected to address any potential impacts of the FTA in Singapore.

While liberalization of services could be expected to have greater economic impact, the TSPC could not identify any environmentally sensitive sectors in the United States likely to be affected by such impacts. The USG is still discussing specific sectoral market access commitments in services sectors with Singapore. However, the United States already allows substantial access to foreign service providers, including in environmentally sensitive areas (*e.g.*, tourism, maritime shipping, and services incidental to energy distribution). The USG does not anticipate any additional commitments beyond those already made in the GATS, NAFTA, and the U.S.-Jordan FTA. Further, the USG is not aware of any requests by Singapore regarding U.S. non-conforming measures (*i.e.*, measures the USG has excluded from the services obligations) related to environmental regulation.⁹

V. SECTORAL ISSUES SELECTED FOR REVIEW

A. Trade in Legally Protected Endangered Species

Though Singapore has little native wildlife within its jurisdiction, it has been a significant wildlife consumer, importer, and re-exporter for decades. Singapore is one of several major transit points for wildlife moving to, from, and within Asia. Singapore also imports wildlife products from, and re-exports them to, the United States. A significant part of this trade is carried out consistent with legal requirements aimed at protecting wildlife from the effects of trade -- in particular, the requirements of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) -- but Singapore has had a history of problems with illegal trade. Recently, however, Singapore authorities have made progress in upgrading and

⁹ For a fuller discussion of environmental services, *see* Section V.C.

implementing laws providing for better enforcement of CITES standards, and fewer problems with U.S.-Singapore wildlife trade have been detected.

Background on the Legal Framework

A core element of the legal framework for international trade in wildlife is CITES, a multilateral environmental agreement to which 158 countries are Parties. Parties to CITES list species that are or could become threatened with extinction on one of three “Appendices” to the treaty, and cooperate to prohibit or regulate trade in those species. Commercial trade is extremely limited for species listed on Appendix I. Commercial trade in species listed on Appendix II is limited to prevent detriment to the species’ survival. Any Party may place a species that occurs within its jurisdiction on Appendix III. Specimens of species listed on Appendices I, II, or III may be traded only if accompanied by the proper CITES permit and (in the case of Appendix III species) a certificate of origin. A Party may take a reservation to the listing of a species on Appendix I or II within 90 days of the vote, and at any time after the addition of a species to Appendix III.

Singapore became a Party to CITES in 1987. Singapore enacted the Endangered Species (Import and Export) Act in 1989 as its domestic implementing legislation for CITES, in combination with the pre-existing Animals and Birds Act and the Control of Plants Act. From 1994 until 2001, the CITES Secretariat advised that Singapore’s legislation failed to satisfy CITES requirements for Appendix III species and artificially propagated plants. At the March 2002 meeting of the CITES Standing Committee, however, the Secretariat reported that Singapore had amended its laws so as to meet all CITES requirements.

The United States became a Party to CITES in 1975 and implements it through the Endangered Species Act (ESA). In addition, the United States prohibits the import, export and sale of products labeled or advertised as containing any substance derived from rhinos or tigers, under 1998 amendments to the Rhinoceros and Tiger Conservation Act, consistent with a resolution adopted by the CITES 9th Conference of the Parties (COP) in 1995. The United States has also enacted domestic measures that are stricter than those required by CITES for certain species. In particular, while CITES allows for commercial trade in specimens of Appendix I species from licensed captive-bred facilities, no specimens listed as endangered or threatened under the ESA are allowed to be commercially traded as long as the wild population remains endangered.

If a specimen is in transit or transshipped through a territory of a Party and remains in customs control, *i.e.*, is not imported into it or exported from it, no CITES permits are required from the transiting or transshipping Party, as described in Article VII.1 of CITES.¹⁰ However, in 1994 the

¹⁰ “Transit” refers to cases in which goods move through a country’s territory while remaining on the same vessel or vehicle without passing through the country’s customs authorities. “Transshipment” typically means that goods are transferred from one vessel or vehicle to another, again without passing through customs authorities. The USG is seeking
(continued...)

CITES Conference of the Parties (COP) in Conf. Res. 9.7 recommended that Parties inspect, to the extent possible under their national legislation, specimens in transit or being transshipped, to verify the presence of valid export documentation as required under the Convention, or to obtain satisfactory proof of its existence. In the context of the broader issue of transshipment (*see* Part VI.A), the USG is exploring with Singapore options for strengthening the monitoring and control of transshipped and transit items.

Background on Singapore Wildlife Trade

Legal trade. Singapore trades in a variety of wildlife specimens and products. Singapore's thriving traditional Chinese medicine industry is a major importer of raw wildlife-derived materials -- such as seahorses and products containing musk -- and exporter of finished wildlife-containing products. Singapore appears to be a major transit point for freshwater turtles to China from Indonesia and Malaysia.¹¹ Other animal species and products for which Singapore is a major trader include crocodile and other reptile skins, sea turtle shell, elephant ivory, and tiger bone.

Singapore and the United States engage in significant wildlife trade. The bulk of the trade in CITES-listed animals recorded by the U.S. Fish and Wildlife Service (FWS) is in reptile skins and products. Singapore imports U.S. alligator skins and products for processing, re-exports alligator-based products back to the United States, and re-exports crocodile and other reptile skins and products from other countries to the United States. In 1999, for example, Singapore imported some \$3.6 million worth of CITES-listed wildlife products from the United States, of which nearly the entire value consisted of American alligator skins or products from the United States. In the same year, Singapore exported or re-exported more than \$7.66 million worth of CITES-listed wildlife products to the United States, the vast majority consisting of American alligator skins and products (\$1.98 million) and other reptile skins and products (\$5.64 million).

Regarding CITES-listed plants, the United States imports orchids (most of which are probably artificially propagated or hybrid specimens) from Singapore and exports a significant quantity of ginseng to Singapore (*e.g.*, 9479 kilograms of ginseng root in 1999).

Illegal trade. Concerns have arisen in the past that illegally harvested and/or traded wildlife products -- including products traded in violation of CITES -- have moved into or through

¹⁰(...continued)

further clarification of Singapore's understanding of these terms. The USG understands that Singapore considers goods transshipped through a local Singapore consignee to be "imports" subject to its import-export controls.

¹¹ Although seahorses are not protected by CITES (nor are most species of freshwater turtles), they may be declining in numbers and are potentially threatened. Thus, the CITES COP has encouraged Parties to collect and review information on trade in these species.

Singapore. In the late 1970s and early 1980s, for example, Singapore was a major transit point for rhino horn from East Africa, where poaching for horns has reduced rhino populations to dangerously low levels. For several months in 1986, the United States imposed a temporary prohibition on wildlife imports from Singapore because of illegal trade concerns.

Such concerns have persisted in recent years. Available evidence suggests that Singapore plays a significant role in the illegal trade of wildlife due to its position as a transit country for Asia and as a consumer of wildlife. In recent years, TRAFFIC Bulletins (produced by TRAFFIC International, a non-profit watchdog group) have identified Singapore as the source or destination of shipments to and from various countries that do not comply with CITES (*e.g.*, lacking proper CITES permits), including specimens of the Hawksbill sea turtle (a CITES Appendix I species used primarily for its shell), various reptiles including cobras and rat snakes (CITES Appendix II species used primarily as live specimens and for leather products), the Asian bonytongue fish (listed on Appendix I, though certain specimens captive-bred in Singapore may be traded legally with CITES permits), and Indian star tortoises (a CITES Appendix II species traded as live specimens). The USG believes, however, that many of these shipments were intercepted by Singaporean officials. In its 2001 annual report, Singapore's Agri-Food and Veterinary Authority (AVA), which is responsible for implementing CITES, reports successful prosecution of six cases, resulting in fines and in one case a one-year prison term.

FWS wildlife trade records report approximately 60 cases from 1995 to 2001 in which wildlife shipments from Singapore were refused clearance due to violations of FWS laws and regulations. The majority of seizures of commercial wildlife shipments from Singapore involved crocodilian species (alligator, caiman, and crocodile). Seizures of personal shipments included stuffed hawksbill sea turtles, medicinal products, cat products, and other stuffed wildlife. Many of the problems related to violations of CITES skin tagging requirements, incorrect species identification, or lack of proper CITES permits. Recently, the U.S. Customs Service, FWS, and Singaporean authorities cooperated in the investigation of a major illegal trading operation involving Asian bonytongue fish, resulting in the indictment and arrest in the United States of a suspect.

Some wildlife is legally exported from Singapore under CITES, but is prohibited from import into the United States because of the ESA. For example, Singapore has sought to export Saltwater crocodile (*Crocodilus porosus*) and Siamese crocodile (*Crocodilus siamensis*) with Singapore documents issued pursuant to CITES permitting requirements, but the shipments are denied entry into the United States because these species are listed as endangered under the ESA. In the past year or so, however, the number of problems appears to be declining. This may be due to expanded discussions between FWS and Singaporean counterparts concerning ESA requirements, along with enforcement actions and interviews with U.S. importers.

Potential Effects of the FTA

Singaporean tariffs on virtually all U.S. exports are already zero. Similarly, U.S. tariffs on Singaporean exports of wildlife products are generally at zero. Thus, the FTA's tariff provisions are not expected to have a direct effect on bilateral trade in such products. However, enforcement remains a considerable challenge. As a general matter, U.S. trade volumes have increased in recent years – and inspections of wildlife shipments have increased from some 87,000 in fiscal year 1996 to over 116,000 in fiscal year 2001 – without a corresponding increase in wildlife trade law enforcement resources.

While both the general problem of illegal wildlife trade and a specific solution are beyond the scope of the FTA, the prospective agreement package is expected to contribute positively to U.S. and Singaporean efforts to improve the tools available for the two nations' authorities to work cooperatively in enforcing their respective laws governing illegal trade in wildlife. As indicated above, the USG intends to explore with Singapore the extent to which the appropriate authorities in the two countries can cooperate to address illegal trade.

B. Other Environmentally Sensitive Trade

Ozone-Depleting Substances

Singapore is a signatory to the Montreal Protocol, and is classified as a "developing country" under Article 5 of the Protocol. As an Article 5 "developing country," Singapore is required to reduce to zero its production of ozone-depleting substances (*e.g.*, chlorofluorocarbons [CFCs]) by 2010, and to recover all used CFCs. Singapore is precluded from exporting newly-produced CFCs. However, it is permitted to export used or recycled CFCs. The rationale is that a developing country with used CFCs can either release the CFCs to the environment, or package them and export them. The quantities of CFCs Singapore exports to the United States are very small. Whether the exported substances are used, recycled, or newly manufactured is extremely difficult to determine.

Public comments have raised concerns that large quantities of ozone-depleting substances are being imported into Singapore and have suggested that developed countries precluded from exporting their used CFCs may be sending them to Singapore for transshipment to take advantage of Singapore's Article 5 status. Agencies with relevant expertise on the TPSC have reviewed the situation in light of these comments, but specific information as to whether, how, and where the material has been handled is lacking. The TPSC encourages further public comment regarding this concern.

Illegal Logging

Public comments have also raised concerns that timber harvested illegally in other Asia-Pacific countries may be transshipped through Singapore. Illegal timber harvesting is receiving increasing international attention for its impact on the environment as well as on the economic and social benefits of forests at the local, regional, and global levels. While illegal logging is primarily an issue of domestic governance, international trade can play a role in stimulating,

enabling, or rewarding illegal activities in a number of Asia-Pacific countries where illegal logging has been identified as a significant cause of deforestation. Therefore, trade-related actions have been identified as possible elements of efforts to reduce and eliminate illegal timber harvesting. The fact that timber (logs) and forest products move through complex trade routes complicates these efforts. Transshipment, including shipment through ports such as Singapore, increases the difficulty of determining both the country of origin of the timber and whether or not it was legally harvested. There is, however, currently no internationally agreed method to determine, on a broad scale, if commercially-traded timber being traded is of legal origin.

Threatened and endangered tree species affected by international trade are an exception. As is the case with wildlife (*see* section V.A, *supra*), CITES can be used as a component of a legal framework to manage and restrict trade and CITES is now used to protect two commercially-important tree species. One of these (*Ramin*) was voluntarily listed on Appendix III of CITES as part of efforts by Indonesia to sustainably manage its forest resources. Illegal logging and associated illegal trade in *Ramin* have been identified as a significant and continuing problem. The United States is an important market for *Ramin* products, and transshipment through Singapore appears to be a factor in illegal *Ramin* trade.¹²

The FTA is not expected to result in significant shifts in the pattern of timber trade through Singapore. However, in the context of the broader issue of transshipment (*see* Part V.A, *supra*), the USG is exploring with Singapore options for strengthening the monitoring and control of transshipped and transit items. Moreover, other activities of the USG are addressing the issue of illegal logging more comprehensively. A presidential initiative to address illegal logging in developing countries is currently being developed. In addition, the USG has been in the lead among G-8 countries in advancing illegal logging as a matter for priority action. In the final report on the G-8 Action Program on Forests (released in conjunction with the June 2002 summit), illegal logging is identified as one of five priority areas. *See* <http://www.g8.gc.ca/docs/forestfinal-e.pdf>. With others, the USG also sponsored the first ever intergovernmental meeting on forest law enforcement and governance (held in Bali, Indonesia in September 2001), which resulted in a Ministerial Declaration acknowledging the environmental effects of illegal logging and committing to national, bilateral, regional, and multilateral efforts to address it.

Ornamental Fish

Public concern continues to grow about ecologically destructive harvesting of ornamental marine fish in Southeast Asia for the aquarium trade (many of which are not species listed on CITES). While no such harvesting takes place in Singaporean waters, Singapore has been a major re-exporter of such fish from other Asian countries to the United States, shipping an average of \$7.7

¹² *See* “Timber trafficking: illegal logging in Indonesia, South East Asia and international consumption of illegally sourced timber” at <http://www.eia-international.org/Campaigns/Forests/Reports/timber/>.

million worth per year in 1996-99, according to public comments.¹³ However, exports of aquarium fish have declined significantly in the past decades, from \$4.3 million worth in 1989 to \$1.3 million in 1998 (Department of Statistics, Singapore). Tariffs on ornamental fish in both the United States and Singapore are already zero; therefore, the FTA is not expected to have a direct impact on this trade. However, the FTA's information sharing provisions may assist the two countries in obtaining data on the trade, which will help them in efforts to assure the trade is sustainable.

C. Environmental Technologies

Environmental technologies, *i.e.*, environmental goods and services, can improve citizens' quality of life and economic well-being, enhance economic efficiency, and foster environmentally sound business practices by helping control and mitigate air, water, and soil pollution. The broad sector of environmental technologies includes the following sub-sectors: water and wastewater treatment; air pollution control; solid waste management; consulting; engineering and other related services; and hazardous and medical waste management. The functional areas for environmental technologies include pollution control, pollution prevention, monitoring and assessment, and remediation.

Current situation in the absence of the proposed FTA

Singapore has had a robust environmental regulatory regime for over 30 years, which has led to a relatively high demand for environmental technologies during that period. *See* Section II.C, *supra*. Nonetheless, new environmental challenges may be on the horizon. For example, existing landfill sites are now nearing capacity and management of hazardous and toxic wastes is receiving increasing attention within the industrial zone.

Goods: In 2001, Singapore was the fifteenth largest source of U.S. imports of environmental goods, with a total value of \$257 million. U.S. tariffs on relevant products are minimal. The majority of environmental goods enter the United States duty free. For a few products, tariffs can range up to approximately 4 percent. Some medical refuse collection equipment, for example, has a tariff of 4.2 percent.

In 2000, Singapore was the eighth largest export destination for U.S. environmental goods. It has been a reliable market for environmental technologies. U.S. exports to Singapore in this sector almost doubled between 1998 and 2001, from \$581 million to \$1 billion. Water pumps and air filtration systems represented the largest portion of goods in this sector. Singapore's environmental market is expected to grow to \$5 billion within the next 10 years. U.S. environmental products account for more than 30 percent of Singapore's total environmental

¹³ *See* Dec. 8, 2000 communication from World Resources Institute (on file with USTR), analyzing FWS records.

technologies imports. About 20 percent of these imports are re-exported, mainly to neighboring countries. Singapore is home to several U.S. environmental companies' Asia branch offices.

Singapore tariffs on environmental goods are non-existent; tariffs are zero on Harmonized Tariff System (HTS) chapter 84, the core group of environmental goods. Tariffs also are zero on related environmental goods found in HTS chapters 85 and 90. Given the current absence of tariffs, FTA market access negotiations are unlikely to have a direct impact on U.S. exports in this sector. Therefore, the FTA's provisions regarding environmental goods are not likely to have a significant environmental impact in either country.

Services: Under the GATS, the United States already provides comprehensive market access in the key environmental service sectors. Accordingly, FTA negotiations are unlikely to have any substantial impact on the inflow of environmental services to the United States.

In its GATS commitments, Singapore has made no sectoral commitments on environmental services as represented in the WTO classification of services. The FTA, however, is likely to increase U.S. access to Singapore's environmental services market due to the additional bilateral commitments Singapore will make both sectorally and horizontally. Accordingly, the FTA should enhance Singapore's ability to advance its key environmental priorities: wastewater management; refuse disposal; and energy/transportation efficiency. In addition, Singapore has expressed interest in joint environmental cooperation programs in the region (*see* Section VII, *infra*). Additional liberalization in related sectors, like engineering and design, should also strengthen Singapore's ability to protect its environment. Therefore, the FTA's provisions regarding environmental services should have a small to moderate positive environmental impact in Singapore and the surrounding region.

Potential Effects of the FTA

Any increase in trade in the environmental technologies sector between the United States and Singapore as a result of a Singapore FTA is not likely to have a significant impact on the environment in the United States. In Singapore, the size of the Singapore environmental technologies market is limited by the small population and the fact that pollution control has been underway for three decades. In addition, average tariffs in the environmental goods sector already are extremely low in both markets. U.S. commitments in the environmental services sector are expected to remain the same as a result of the FTA.

Singapore's commitments in the environmental services sector are expected to improve as a result of the FTA. In the medium to long-term, U.S. exports may be driven by procurement decisions by the Government of Singapore, which is expected to spend \$4 billion on environmental infrastructure projects within the next several years. Singapore has made additional procurement commitments in the FTA above and beyond its WTO commitments.

VI. REGULATORY ISSUES SELECTED FOR REVIEW

A. Enforcement and Information Sharing on Customs and Import-Export Matters

Because Singapore is a major transit port, concerns have been raised that its facilities may face increased transshipment or transit of goods from third countries that are subject to import prohibitions or restrictions. Early in the negotiations, the USG made these concerns a priority in a number of negotiating areas, and Ambassador Robert Zoellick personally raised the issue with Singapore Minister for Trade and Industry George Yeo. While such concerns have been broad-based, illegal environmental trade (such as in endangered species) was one of the key areas identified, in part through public comments submitted in this review.

In the negotiations, the USG has pressed Singapore at high levels for the FTA to contribute positively to efforts to control illegal trade, including through commitments on cooperation and information sharing. The FTA is expected to contain provisions that will not only enhance transparency and efficiency of customs operations, but will also improve the tools available for the relevant competent authorities to work cooperatively at various levels to address effectively the issue of illegal trade.

B. Investment

Investment agreements are designed to provide a secure legal framework for investment among the Parties and reduce protectionist barriers, taking into account governments' need to protect the public welfare and other policy objectives. Such agreements have a long history, including in 43 bilateral investment treaties (BITs) to which the United States is a Party and Chapter 11 of the NAFTA. These agreements all include provisions allowing private investors of a party to submit to arbitration a claim that another State Party has violated one or more of the investment obligations and has thereby caused loss or damage to the investor or investment ("investor-State" mechanism). Investment agreements have brought benefits in recent decades, helping to remove barriers to U.S. investment abroad and to provide U.S. investors overseas with fair and non-discriminatory treatment. However, concerns have been raised that arbitral panels could potentially misinterpret the investment obligations to be inconsistent with legitimate government regulatory functions, including environmental protection.

The TPSC has been carefully considering a wide range of public views expressed on these issues in the context of TPA legislation. In January and February 2002, prior to enactment of the Trade Act of 2002, Ambassador Robert B. Zoellick met for an in-depth exploration of ideas with representatives of environmental NGOs and the academic community concerned with possible negative implications of the investment provisions, and with representatives of the business community concerned that modifications to the provisions would undermine their usefulness.

The Trade Act of 2002 provides guidance on these issues in the form of principal negotiating objectives regarding investment. As explained in the Conference report, Congress believes that it is a priority for negotiators to seek agreements protecting the rights of U.S. investors abroad and

ensuring the existence of a neutral investor-State dispute settlement mechanism. At the same time, these protections must be balanced so that they do not come at the expense of making U.S. federal, state, and local laws and regulations more vulnerable to successful challenges by foreign investors than by similarly situated U.S. investors.

Specifically, Section 2102(b) of the Act establishes principal negotiating objectives regarding:

- (1) seeking to establish standards for expropriation and compensation for expropriation, consistent with U.S. legal principles and practice;
- (2) seeking to establish standards for fair and equitable treatment consistent with U.S. legal principles and practice, including the principle of due process;
- (3) establishing meaningful procedures for resolving investment disputes;
- (4) seeking to improve mechanisms used to resolve disputes between an investor and a government through –
 - (i) mechanisms to eliminate frivolous claims and to deter the filing of frivolous claims;
 - (ii) procedures to ensure the efficient selection of arbitrators and the expeditious disposition of claims;
 - (iii) procedures to enhance opportunities for public input into the formulation of government positions; and
 - (iv) providing for an appellate body or similar mechanism to provide coherence to the interpretations of investment provisions in trade agreements;

and

- (5) increasing transparency in the dispute settlement mechanism, to the extent consistent with the need to protect information that is classified or business confidential, by –
 - (i) ensuring that all requests for dispute settlement are promptly made public;
 - (ii) ensuring that (I) all proceedings, submissions, findings, and decisions are promptly made public; and (II) that all hearings are open to the public; and
 - (iii) establishing a mechanism for acceptance of amicus curiae submissions from businesses, unions, and nongovernmental organizations.

Trade Act of 2002, section 2102(b)(3).

The TPSC is developing its negotiating positions on these issues in the Singapore FTA in light of the Trade Act's requirements. The TPSC will provide means for continuing to consult with stakeholders as it moves forward, including by seeking comment on this draft environmental review.

C. Services

The services chapter under consideration for the Singapore FTA is similar to that under consideration for the Chile FTA and discussed in that draft environmental review. (www.ustr.gov/environment/draftchileer.pdf, pp.75-77). The general scope of the Singapore FTA draft services chapter pertains to cross-border supply of services: (1) from the territory of one Party into another Party (for example, through electronic means, such as when a lawyer in Singapore provides legal services through telephone, fax or internet to a client in the United States); (2) in the territory of one Party by a person of that Party to a person of another Party (for example, when a citizen of Singapore travels to Washington and consumes U.S-supplied services, such as hotel or restaurant services); and (3) by a national of a Party in the territory of another Party (for example, when a Singapore engineer enters the United States to supply engineering services). The USG believes that the general obligations pertaining to investment to supply services are more appropriately addressed under the FTA's chapter on investment. However, the USG has proposed that certain provisions (*e.g.*, domestic regulation) in the draft services chapter also would apply to investment in supply services (*e.g.*, through a subsidiary, joint venture, or branch) – similar to the approach that the United States and Singapore already guarantee by virtue of their GATS commitments. The services chapter would exclude services supplied in the exercise of governmental authority, *i.e.*, any service that is supplied neither on a commercial basis, nor in competition with one or more services suppliers.

The draft services chapter contains core obligations, including for national treatment, most-favored-nation treatment, and non-discriminatory quantitative restrictions but also recognizes the right of Singapore and the United States to list measures that do not conform with such obligations (“non-conforming measures”) so as to protect them from dispute settlement under the FTA. The draft services chapter's standard for application of national treatment and most-favored-nation treatment evaluates whether the foreign supplier is “in like circumstances” to the domestic supplier. This concept would allow for different treatment for service suppliers depending on the relevant particular circumstances so as, in appropriate circumstances, to permit differential treatment on the basis of factors or conditions related to the regulatory objective. The draft services chapter also will include provisions, drawn from the GATS and the NAFTA, on domestic regulation, including transparency of regulatory processes, other obligations relating to measures of general application, and to those specific to qualification requirements and procedures, technical standards and licensing requirements.

Because the core obligations replicate obligations the USG has assumed under the GATS and the NAFTA, the TPSC concluded that the Singapore FTA should not have any impact on the ability of governmental authorities to enforce or maintain U.S. environmental laws or regulations.¹⁴

VII. ENVIRONMENTAL COOPERATION

The United States and Singapore have a productive history of environmental cooperation, including in areas such as air quality, solid waste management, and clean production. In particular, the U.S. EPA and the U.S.-Asia Environmental Partnership have worked closely with Singapore's Ministry of Environment in efforts to support the diffusion of clean technology and improved environmental standards throughout the Southeast Asia region. *See* Annex II (Inventory of Environmental Cooperation Activities with Singapore).

As discussed above, the Trade Act provides that a principal U.S. negotiating objective with respect to the environment should be to strengthen environmental capacity building in U.S. trading partners. Because Singapore already has demonstrated a well-developed capacity to protect its environment, the USG anticipates exploring with Singapore ways in which the two countries can build on the existing relationship and work together to strengthen environmental capacity in other countries in the Southeast Asia region. The TPSC invites public comment on specific ideas for environmental cooperation to inform these discussions.

¹⁴ The TPSC did not identify any potential environmental impacts in the United States from specific service sectoral commitments likely to be considered in connection with the Singapore FTA. *See* Section IV.E, *supra*.

ANNEX I
Multilateral Environmental Agreements to which Singapore is a Party

(date of Singapore's accession in parenthesis)

Vienna Convention for the Protection of the Ozone Layer (1/5/89)
UN Framework Convention on Climate Change (5/29/97)
Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal (1/2/96)
United Nations Convention on Biological Diversity (12/8/95)
Convention on the International Trade in Endangered Species of Wild Fauna and Flora (11/30/86)
Montreal Protocol on Substances that Deplete the Ozone Layer (1/5/89)
 1990 London Amendment to Montreal Protocol (3/2/93)
 1992 Copenhagen Amendment to Montreal Protocol (9/22/00)
 1997 Montreal Amendment to Montreal Protocol (9/22/00)
MARPOL Protocol for the Prevention of Pollution from Ships (Annexes I, II, III, V) (11/90)
 (Singapore ratified Annex VI on August 10, 2000, and is currently working on Annex IV).
UN Convention of the Law of the Sea (11/17/94)
UN Convention to Combat Desertification (4/26/99)

Consultative Mechanisms to which Singapore is a Party

Malaysia-Singapore Joint Committee on the Environment (MSJCE)
Indonesia-Singapore Joint Committee on the Environment (ISJCE)

ANNEX II

Inventory of Environmental Cooperation Activities with Singapore

- Under the auspices of the Asia-Pacific Economic Cooperation (APEC) Forum, the United States and Singapore jointly organized and sponsored a regional training workshop on “Cost-Effective Strategies for Cleaner Production in the Electronics and Computer Industry.” The event was held in Singapore March 22-25, 1999 and brought together officials and business representatives from Australia, Chinese Taipei, Hong Kong, Indonesia, Malaysia, the Philippines, the PRC, and Thailand. The U.S. Environmental Protection Agency (EPA), through its cooperative program with the U.S.-Asia Environmental Partnership (USAEP), participated in the workshop. The EPA presentation highlighted the U.S. experience in promoting pollution prevention in the computer and electronics industries, particularly the printed wiring board, semiconductor, and cathode ray tube manufacturing sectors. The presentation focused on regulatory approaches and technical assistance. An EPA grant to the U.S.-based Environmental Training Institute provided additional logistical support and U.S. private sector input for the event.
- EPA, again through its cooperative program with USAEP, conducted a regional workshop on particulate matter in Singapore, April 28-30, 1999. Co-sponsored by the Singapore Ministry of Environment and the Singaporean Institute of Environmental Epidemiology, the workshop focused on tracking airborne particulate matter less than 2.5 micrometers in diameter (PM 2.5), which poses serious human health risks when inhaled. The workshop was a follow-up to a 1997-98 EPA technical assistance program, which focused on analyzing the effects of Indonesian biomass fires on human health in the region. Led by EPA scientists, the event included a review of the United States’ latest PM2.5 developments, including air pollution health impacts, policies, and regulations.
- In April, 2001, EPA, together with USAEP and the Singapore Accreditation Council, provided support for an International Conference on Analytical Technology which was held in Singapore. The conference was designed to address analytical methods, quality assurance, and quality control issues in analytical laboratories. The program was hosted by the Environmental Technology Institute, featured an EPA chemist as a key speaker, and highlighted several EPA analytical methods and methodologies, as well as the National Environmental Laboratory Accreditation procedures.
- USAID/USAEP and Singapore’s Ministry of Environment jointly sponsored the “Workshop on Developing Urban Municipal Solid Waste Management Systems and Institutions,” held in Jakarta May 13-14, 2002. The event included officials from Indonesia’s Ministry of Environment, various municipalities around Jakarta, and the Philippines. The workshop provided useful information on the experiences of countries in the region at different levels of economic development, the role of the public in developing sustainable waste management systems, and ideas and technologies from the United States.

The event laid the foundation for further cooperation between the participants and for the development of a comprehensive municipal solid waste plan for Jakarta.

- The Department of Commerce's Office of Environmental Technologies Industries has participated in several environmental activities with Singapore, including U.S. technology representation at environmental trade shows in Singapore and a trade mission of U.S. environmental technology firms to Singapore pursuant to grants under the Market Development Cooperation Program. These programs resulted in memoranda of understanding and millions of dollars in sales of environmental goods and services to Singapore.

ANNEX III

List of Environment-Related Responses to November 29, 2000 Federal Register Notice

American Electronics Association
Bullock, John (Attorney)
Celanese Chemicals
Center for International Environmental Law (on behalf of certain members of Trade and
Environment Policy Advisory Committee)
International Mass Retail Association
Molex
United Airlines
U.S. Council for International Business

Environment-Related Testimony at April 1, 2002 Public Hearing

Angel, David (Clark University)
National Environmental and Policy Institute